



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,256	01/26/2004	Srikanth Varanasi	1-15610	9581
1678 7590 06/20/2007 MARSHALL & MELHORN FOUR SEAGATE, EIGHT FLOOR TOLEDO, OH 43604			EXAMINER CHEN, BRET P	
			ART UNIT 1762	PAPER NUMBER
			MAIL DATE 06/20/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/765,256	Applicant(s) VARANASI ET AL.	
	Examiner B. Chen	Art Unit 1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-20 and 27-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-20 and 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-14, 16-20, 27-29 are pending in this application, which is an RCE of Serial Number 10/765256. The preliminary amendment dated 4/30/07 amending claims 1, 16; canceling claim 15; and newly adding claim 29 has been entered.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/30/07 has been entered.

Claim Objections

Claims 6, 16-20, 27 are objected to because of the following informalities listed below. Appropriate correction is required.

In claim 6, the term "the iron oxide layer" lacks antecedent basis. The examiner assumes that said term refers to the iron oxide coating recited in independent claim 1. Appropriate amendments are requested.

In claim 16 line 6 (which claims 17-20, 27 depend from), the term "the iron oxide coating" lacks antecedent basis. The examiner assumes that said term refers to the iron oxide layer in line 3. Appropriate amendments are requested.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-14, 16-20, 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halaby et al. (3,892,888) in view of Robinson et al. (2002/0135099) or vice versa.

Halaby discloses a method of making a magnetite film or gamma ferric oxide film magnetic recording and storage device comprising the step of depositing a film of elemental iron, alpha ferric oxide, or magnetite on an inorganic and non-magnetic substrate by chemical vapor deposition (col.1 lines 36-49). The substrate can be in the form of a disk, tape, rod, drum or wire and can be aluminum, glass, glass-ceramic or ceramic that can withstand without damage the high temperatures encountered in the method of this invention (col.2 lines 15-23) and can be heated to 300°C (col.2 lines 52-54). The precursor can be ferrocene and can be transported by the use of an inert or reducing carrier gas (col.2 lines 54-69) and the carrier gas can be oxygen (col.6 lines 1-18). It should be noted that the final film can be alpha ferric oxide (col.5 lines 63-

Art Unit: 1762

65). Nitrogen can be used as an inert gas (col.4 lines 1-25). However, the reference remains silent on directing forming a gaseous mixture.

It is noted that the reference clearly teaches of utilizing ferrocene and an oxidant to react to form an iron oxide film. One skilled in the art knows that forming a mixture prior to reacting ensures saturation amongst the desired materials. It would have been obvious to utilize a mixture of ferrocene and an oxidant to deposit an iron oxide film with the expectation of obtaining similar results.

In addition, the reference fails to teach a float glass process. Robinson discloses a method of using float glass having a SnO_2 enriched surface, wherein the method includes the steps of providing an ionic release agent externally to the tin oxide surface (par 9). Specifically, the reference teaches the conventionality of making a float glass wherein the molten glass is allowed to float on a liquid pool of tin which results in one side of the glass having a tin enriched surface as opposed to the air-side of that same piece of glass (par 54). A metal oxide coating such as Fe_2O_3 can be formed (par 55). In one embodiment, two or more layers are contemplated (par 55). It would have been obvious to incorporate the float glass substrate of Robinson in Halaby's process with the expectation of obtaining similar results.

In addition, Robinson's process is silent on specific precursors for forming Fe_2O_3 layers. Halaby discloses the conventionality of using ferrocene and an oxidant. It would have been obvious to incorporate Halaby's precursors in Robinson's process with the expectation of success.

The limitations of claims 2-14, 16-20, 27-29 have been addressed above.

Art Unit: 1762

Response to Arguments

Applicant's arguments with respect to the claims above have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. Chen whose telephone number is (571) 272-1417. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bc
6/18/07


BRET CHEN
PRIMARY EXAMINER